

**IAC Mission Success Stories**

Please visit other DTIC IAC Mission Success Pages by following these links...

AMPTIAC  
CBHAC  
CFIA  
DACS  
HSHAC  
LHAC  
MIA  
MIS IAC  
MTIAC  
NTIAC  
SURTAC  
WSTIAC

Please visit other Military IAC Mission Success Pages by following these links...

APNMAC  
CEMAC  
CESTIAC  
CTIAC  
ETIAC  
HEIAC  
SUNMAC  
SWIAC

Defense Technical Information Center  
ATTN: DTIC-M  
8725 John J. Kingman Road, Suite 8944  
Fort Belvoir AB 22060-6216  
Commercial: 703.767.5820  
DSN: 421.5120  
FAX: 703.767.5119  
E-mail: [ic@dtic.mil](mailto:ic@dtic.mil)

Information  
Technology  
Center



DACS

Story 1

Story 2

### DACS Web Site Awards

The DACS Web Site at <http://www.dacs.dtic.mil/> has won numerous awards for its originality, content, and quality. Awards received include "Link of the Week" for the week of February 14, 2000 and "Site of the Week" on June 22, 1998 by Computer Currents Interactive. CCI is the online version of the award-winning computer magazine Computer Currents. CCI is one of the Top 5% Visited Web Sites, and received iGUIDE's and Magellan's highest ratings. The site was also awarded "Web Site of the Week" by Information Week Magazine. In the description of the DACS Website, the editor writes about the DACS, "Finally it's government at work for the people." Information Week Magazine has a circulation of 375,000 readers.

*Continued on Story 1*

### DACS Successfully Supports the Warfighter Through Use of High Performance Computing

The Wafer Scale Signal Processor (WSSP) is a high performance parallel computing signal processing board being developed by the Air Force Research Laboratory in Rome, NY. The WSSP program is establishing geometric advances in processing performance per watt for computing platforms. The DACS has led the development of the WSSP real time operating system, language compilers, editors, linkers, and libraries for the WSSP. Preliminary WSSP boards have been delivered by the manufacturer and are currently being tested. Key accomplishments in 1999 included—

1. Successful porting of software previously developed using VHDL and ISA simulators to hardware,
2. Software developed solutions to hardware problems identified during testing,
3. Development of a WindowsNT Device Driver to support the WSSP interface between the PCI Bus and the WindowsNT Host Computer.

*Continued on Story 2*

Please visit our Web site at <http://www.dacs.dtic.mil> or send us an E-mail at [dacs@dtic.mil](mailto:dacs@dtic.mil)

**IAC Mission Success Stories**

Please visit other DTIC IAC Mission Success Pages by following these links...

AMPTIAC  
CBIIAC  
CEPIA  
DACS  
HRSAC  
LNTAC  
IRIA  
IWS IAC  
INTIAC  
HTIAC  
HAC  
SURVIAC  
WSTIAC

Please visit other Military IAC Mission Success Pages by following these links...

APMIAC  
CEIAC  
CESTIAC  
CTIAC  
ETIAC  
HEIAC  
SIAMIAC  
SWIAC

Information  
Technology  
Center

Defense Technical Information Center  
ATTN: DTIC-RI  
875 John J. Ringham Road, Suite 844  
Fort Belvoir, AL 36205-6216  
Commercial: 205 767 5820  
DSN: 421 5120  
FAX: 205 767 5119  
E-mail: [info@dtic.mil](mailto:info@dtic.mil)



DACS

Story 1

Story 2

## DACS Web Site Awards (continued)

Other awards include—

- Listed in Infoworld Magazine under "The Web Hotlist, Web sites worth checking out." In the description of the DACS Website, Infoworld called the DACS a "...comprehensive resource for software information."
- Received a "Must See" rating from Excite. Under the Computing Section the DACS was reviewed by ZD Net reviewers and listed as a "Must See." In their writeup, they said that "The DACS serves as a centralized source for current, readily available data and information concerning software engineering and software technology. This good-looking, information-packed site is a must for anyone at all interested in these areas."
- Chosen by visitors to the Starting Point Web Site. Here's the notification, "Your site is scheduled to be featured on January 30th as a Starting Point computer "Hot Site" <http://www.stpt.com/cgi-bin/comput/comput.cgi>. After you submitted your site to us, our users viewed your site and voted for you in our New section. The votes have been tallied and you are now a Starting Point Hot Site!" The DACS WWW site was included in an issue of Clickables (Internet Announcement Service) as a "Top Notch Clickable."
- Selected as for inclusion in the National Science Foundation's (NSF) Small Business Innovation Research (SBIR) Internet Resources Catalog. Foresight Science & Technology, Inc. is the contractor for this Catalog. In addition it is disseminated annually to thousands of researchers involved in the Federal Government's Small Business Innovation Research (SBIR) Program.
- Received an "Critical Mass Award" from Critical Mass, An Internet Information Resource Guide. They wrote, "Congratulations! Your site definitely qualifies for the "Critical Mass Award." An exceptional site, excellent design, beautiful original graphics, and your content is informative, entertaining, presented well and easy to access. A "worthy" enterprise and a "positive" contribution to the Web. "Thanks for helping make the Web a more interesting, fun and attractive place to visit. I really enjoyed my visit to your site and will return again when time permits :)" One of the Top 1,000 accessed sites on the Web, Critical Mass only gives awards to sites that have useful content, good design and presentation, and are easy to navigate.

Please visit our Web site at <http://www.dacs.dtic.mil> or send us an E-mail at [dacs@dtic.mil](mailto:dacs@dtic.mil)

**IAC Mission Success Stories**

Please visit other DTIC IAC Mission Success Pages by following these links...

AMPTIAC  
CBUAC  
CPA  
DACS  
HSDAC  
MIDAC  
IRIA  
IRSIAC  
MTIAC  
NTIAC  
RAC  
SURTAC  
WSTIAC

Please visit other Military IAC Mission Success Pages by following these links...

APMIAC  
CEMIAC  
CRSTIAC  
CTIAC  
DTRIAC  
EIRAC  
HEIAC  
SAMIAC  
SBIAC

Information Analysis Center

Defense Technical Information Center  
ATTN: DTIC-A  
8725 John J. Kingman Road, Suite 8944  
Fort Belvoir, VA 22060-6218  
Commercial: 703.767.9122  
DSN: 437-9128  
FAX: 703.767.9119  
E-mail: [ac@dtic.mil](mailto:ac@dtic.mil)



DACS

Story 1

Story 2

## DACS Successfully Supports the Warfighter Through the Use of High Performance Computing (continued)

The WSSP is being used on the Discriminating Interceptor Technology Program (DITP). DITP is to develop real-time mission critical application software that supports a missile intercept mission. The active life of the program operation aboard the missile is 60 seconds. The DACS is developing the process-to-process interaction software. The DACS is also leading the design effort for the DITP. The DACS is supporting the development of the DITP Fusion Processor Message Interface (FPMI), Message Manager (MM), and Process Manager (PM). FPMI has been devised for efficient handling of sensor data. PM has been devised to maximize processor "busy" time. MM manages the messages between processes. DITP is a real-time, parallel processing application that must run within the constraints of limited memory. DITP testing will be performed on the WSSP. Key accomplishments in 1999 included—

1. Re-engineering two critical DITP algorithms to utilize vector and matrix instructions on WSSP.
2. Re-writing math library functions,
3. Achieving algorithm execution speeds required within the limited available memory space,
4. Developing special tools to compute DITP stack sizes and convert application code load images from "gdb" format to "dli" format,
5. Developing control logic for executing DITP algorithms on the WSSP distributed environment.

Please visit our Web site at <http://www.dacs.dtic.mil> or send us an E-mail at [dacs@dtic.mil](mailto:dacs@dtic.mil)